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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,444	11/14/2003	Rudolf Wessel	AVANV-000308	9383

21971 7590 06/02/2005

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EXAMINER

PALMER, PHAN T H

ART UNIT PAPER NUMBER

2874

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/714,444

Applicant(s)

WESSEL, RUDOLF

Examiner

PHAN T.H. PALMER

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*Phan T.H. Palmer*  
PHAN T. H. PALMER  
PRIMARY EXAMINER  
05/29/2005

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Applicant's cooperation is requested in correcting any error of which applicant may become aware in the specification.

***Preliminary Amendment***

2. Preliminary Amendment filed 05/17/2004, and 01/09/2004, has been entered.

***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 11/14/2002. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawachi et al. (4,978,188).

The Kawachi et al. discloses in figures 1-3, a method for trimming birefringence of an integrated optical device with at least one waveguide having a birefringence characteristic, comprising the steps:

- providing at least one electrode (or metal chromium) (6) on top of the waveguide (5)
- applying power equal to or above a predetermined power level to said at least one electrode for causing an irreversible birefringence change of the waveguide.

With regard to claim 1, the Kawachi et al. discloses all the claimed invention. See abstract.

With regard to claim 2, the step measuring the birefringence change, preferably with the at least one electrode by supplying electrical power to the electrode, is disclosed in the Kawachi et al. See col. 13, lines 39-43.

With regard to claim 7, the electrode is provided as a metal electrode, preferably as a chromium heater electrode is disclosed in the Kawachi et al. See col. 9, lines 45-48.

With regard to claim 8, an optical device for switching or filtering light passing a waveguide having a birefringence, as discloses in claim 8, is fully disclosed in the Kawachi et al. Since the integrated optical device such as is an optical switch. See col. 20, lines 13-17.

With regard to claim 9, the optical device, characterized in that the waveguide has a core layer sandwiched between a cladding layer, wherein both layers are made of a silica based material and the cladding is highly doped with a material adapted to balance stresses for TE and TM polarization modes, is disclosed in the Kawachi et al. See abstract lines 11-15, col. lines 63-65, and col. 14, lines 5-8.

With regard to claim 10, the optical device, characterized in that it is a Mach-Zehnder interferometer, is disclosed in the Kawachi et al. reference. See col. 14, lines 52-54.

With regard to claim 11, the optical device, characterized in that it is a ring resonator, is disclosed in the Kawachi et al. reference. See col. 14, lines 9-12.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawachi et al. (4,978,188).

With regard to claim 3, the method for trimming birefringence of an integrated, characterized in that the predetermined power level is 0.8 W/mm, is obvious discloses in the Kawachi et al. reference, since in col. 10, lines 57-60, the Kawachi et al discloses the power level is 1 W.

With regard to claim 4, the method for trimming birefringence of an integrated, characterized in that the integrated optical device is an optical filter device is obvious design choice, since in col. 4, lines 42-46, the Kawachi et al. reference disclose "when manufacturing other integrated optical devices such as optical ring resonators, Fabry-Perot resonators, polarization beam splitters, mode converters, wave plates, directional coupler and so on".

With regard to claim 5, the method for trimming birefringence of an integrated, characterized in that the integrated optical device is a thermo optical device, is disclosed in the Kawachi et al. See col. 2, lines 23-32.

With regard to claim 6, the method for trimming birefringence of an integrated, characterized in that the optical filter is a Mach-Zehnder Interferometer or a ring resonator, is disclosed in the Kawachi et al. reference. See col. 14, lines 9-12, and 52-54.

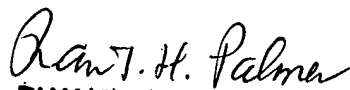
**CONTACT INFORMATION**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHAN T.H. PALMER whose telephone number is (571) 272-2354. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RODNEY B. BOVERNICK can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**PTHP**  
**05/29/2005**

  
**PHAN T. H. PALMER**  
**PRIMARY EXAMINER**